6-2008

Forage News [2008-06]

Department of Plant and Soil Sciences, University of Kentucky

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FORAGE NEWS

For more forage information, visit our UK Forage Extension Website at: **http://www.uky.edu/Ag/Forage**

June 2008

Garry D. Lacefield and S. Ray Smith, Extension Forage Specialists • Christi Forsythe, Secretary

University of Kentucky Field Day – June 12, 2008

The U.K. College of Agriculture Field Day "Agriculture in a New Bioeconomy" will be held on the Spindletop Farm in Lexington on June 12. Registration will begin at 2:00 p.m. EST with ample time to visit exhibits. Field Clinics/Workshops will begin at 3:00 p.m. and be repeated at 4:30 p.m. Participants can select from five different topics (Hay Production, Pasture Evaluation for Horses, Setting Depth for Tobacco Transplants, Corn Growth and Development, and Invasive Woody Plant Control Methods). Meals will be available from the Fayette County Cattlemen's Association for purchase from 5:00 – 7:00. There will be an Equine Tour beginning at 6:00 as well as one of two Field Tours (6:00 and 7:00 p.m. starting times). Each tour will feature four stops concerning various aspects of crop production including forages, tobacco, wheat, pest management, biofuels, corn and weed control. Detailed brochures including map to Spindletop are available through County Extension Offices or on the web at www.uky.edu/Ag/Forage. CCA Credits and Pesticide CEU's are available for some of the Clinics/Workshops and Field Tours.

KFGC Forage Spokesman

Kentucky holds the national record for having more National Forage Spokesman winners than any other state. The reigning National Forage Spokesman is Barry Drury from Woodford County. We are now accepting nominations for the next Forage Spokesman Contest to be held in conjunction with the Kentucky Grazing Conference in Lexington October 23. If you would like to nominate a Kentucky Forage Producer to participate, please send a nomination to Dr. Ray Smith, Plant & Soil Science Dept., 105 Plant Science Bldg., 1405 Veterans Road, University of Kentucky, Lexington, KY 40546-0312 or by e-mail to raysmith1@uky.edu. Nominations should contain nominees' name, address, and a brief (less than one page) paragraph describing the candidates forage program.

KFGC Awards Nomination

Each year, the Kentucky Forage & Grassland Council presents Forage Awards to individuals that have made significant contributions to Kentucky's Forage Industry. Awards will be presented in four categories (producer, public (county and state), and industry) at the KFGC Business Meeting in conjunction with the Kentucky Grazing Conference October 23 in Lexington. To nominate a deserving individual, please send a one page nomination to Dr. Garry Lacefield, Research & Education Center, P.O. Box 469, Princeton, KY 42445 or by e-mail to glacefie@uky.edu. For a list of past award recipients, see our website http://www.uky.edu/Ag/Forage/KFGC%20Award%20Winners%20History.pdf

Reducing Forage Losses Can Save Big Bucks

With this year's high feed values, dairy producers can lower ration costs big time by reducing forage losses during harvest, storage and feeding, says Brian Holmes, a University of Wisconsin ag engineer. He says a recent analysis compared good and fair management practices for a 100-cow herd where alfalfa and corn silage were fed to lactating cows, dry cows and most heifers based on their needs. Corn silage, valued at $125/ton of dry matter, represented 55% of the whole-herd forage diet. The remaining forage, alfalfa silage, was valued at $150/ton of dry matter.

The annual dry matter losses with good and fair management were $24,160 and $41,031, respectively, a $16,871 difference. Holmes says producers can move from fair to good forage management by adopting these practices:

- Properly adjust equipment, minimize hay handling operations and harvest at the recommended moisture content of 60-65% for alfalfa silage and 65-70% for corn silage.
- Fill silos as quickly as possible.
- Pack bunkers, piles and bags densely during filling.
- During feed-out, remove at least 6" from the silage face daily and keep the face smooth and without fissures.
- Deliver the correct amount of feed to the mixer wagon and don't spill.
- Monitor feed bunks closely and adjust the amount delivered to minimize refusal.

To learn more about proper forage harvest, storage and feed-out, see the many articles and spreadsheets at the University of Wisconsin-Extension Team Forage Web site at www.uwex.edu/ces/crops/uwforage/storage.htm. Or visit past articles on aspects of bunker management: Superior Silage, Extra Packing Pays, Packing Properly? and Shave Silage Losses *(eHay Weekly, May 6, 2008)*

Weed-Seed-Free Straw Market Beats Hay

Today, there's little market potential for certified noxious weed-seed-free hay in the Midwest. It's something that certifying agencies hope will change soon.

Certified straw, however, is a niche showing increasing demand – especially in a state with an established certified noxious weed program and a transportation department that supports it. So says Ben Lang, soon-to-be president/CEO of the Minnesota Crop Improvement Association, that state's noxious weed-seed-free forage and mulch certification agency.

"In Minnesota, certified noxious weed-seed-free hay has been sold primarily to trail riders who take their horses to the Western U.S., where it (certified hay) has been required. That market is pretty limited," Lang says. "Most of what we certify under that program is actually straw mulch."

"There is a real strong market for (certified weed-seed-free) straw mulch within the state because Mn/DOT (Minnesota Department of Transportation) is requiring it on its roadside projects for revegetative use. Other state and federal agencies are beginning to require it on their own revegetative projects," he adds.

Mn/DOT has been supportive of the program from the beginning, Lang says. "It sees its value. When noxious weeds are established in road ditches, it becomes Mn/DOT's job to control them and that would be very expensive. And in using chemicals, there's liability associated with that and spray-drift issues – all those things it has to deal with once noxious weeds are out there and have to be controlled."

Essentially, such a program certifies that hay or straw is harvested before seeds form on the noxious weeds harvested with the crop. It does not imply that the forage or straw is weed-free; instead, it ensures that the weeds won't spread seeds and propagate, says Keith Johnson, Purdue University forage agronomist. Certification programs vary, but usually involve a membership fee and certification fees when inspectors visit fields prior to any harvests. A three-cutting field would have to receive certification before each of those three cuttings. Storage is also viewed before a crop is certified, he says.

Some hay growers have been approached by horse owners looking to buy weed-seed-free hay. That's because national parks are beginning to require such hay on park trail rides to prevent weeds from spreading.

But Indiana, which established its own certified weed-seed-free forage and mulch program three years ago, has no hay growers utilizing it, says Johnson.

"The program has been built, but the need hasn't been expressed to the point to get forage and straw producers to really latch onto this. And that seems to be more of a regional issue and not just Indiana alone," he says. At a recent regional meeting, organizers concurred that they need to go to trail associations, national and state parks, state highway departments and others in an attempt develop markets for certified hay and straw.

Randy Judd of the Michigan Crop Improvement Association says only one person may harvest a certified weed-seed-free crop in Michigan this year. And he'll harvest straw. Judd believes, however, that there is potential for certified hay as more state parks and other public lands are requiring its use.

For more information on certified noxious weed-seed-free programs, visit www.hayandforage.com/. *(eHay Weekly, May 12, 2008)*

Nutrient Value of Baled Hay

Many cow-calf farmers have asked me about the fertilizer value of nutrients contained within a bale of hay. Although the majority of hay feeding is over for the year, I believe farmers have realized that large price increases in commercial fertilizer needs to be offset by an increase in hay prices. Hay prices this past winter in our region have nearly double to what the price was the previous year.

A significant amount of fertility is contained within a bale of hay so we recommend feeding hay in areas where you would like to increase soil fertility. Of course, not all hay is created equal when it comes to the quantity of nutrients per ton of dry matter. Hay differs in nutrient content due to species, yield, growing conditions including soil fertility, haying conditions, etc. Summarized below In Table 1 are estimated hay nutrient values for some of the commonly grown forages in our region.

Approximate quantities of nutrients contained per ton of hay dry matter for selected hay species.

	N	P_2O_5	K_2O
Forage species	-------- lbs/ton DM --------		
Alfalfa	55*	15	60
Clover-grass mix	50*	15	60
Bromegrass	35	15	60
Tall Fescue	40	20	50
Orchardgrass	50	20	60
Timothy	40	15	60

*most of the N derived from nitrogen fixation by legumes.

As a rule of thumb, cool season grasses will contain approximately 40 lbs N, 20 lbs P2O5, and 55 lbs K2O per ton of hay dry matter. However, N losses from a hay feeding system can often be in the neighborhood of 75% so that only 25% of the N contained in the hay is returned to the soil and available to be utilized by growing plants.

Our current fertilizer prices at Brookfield, MO ($/lb) are: N $0.62, P2O5 $0.75, and K2O $0.50. Using the rule of thumb stated above, we estimate that there is $67.30 worth of nutrients (N, P, and K) contained in a ton of grass hay (this equals $40.38 worth of nutrients per 1200 lb bale). After adjusting for the expected loss of nitrogen from the system, we estimate the value of nutrients returned to the soil from feeding a 1200 pound bale of grass hay is approximately $29.22. Remember to manage nutrient deposition (manure distribution) to areas where it is most needed by unrolling hay, moving bale rings across the landscape, or by space bale feeding.

Forage producers can reduce some of their fertilizer bill by accounting for nutrients returned through hay feeding, adding legumes to their pastures, and adjusting soil pH to near neutral. Winter feeding options that will help reduce fertilizer needs include managed (strip grazing) stockpile systems that result in uniform manure/nutrient distribution, bale feeding in areas where additional fertility is needed, unrolling hay to distribute nutrients more evenly across the pasture, and supplement feeding in areas requiring added fertility. When buying hay you should not only consider the feed value of the hay but should also consider the value of nutrients contained within the bale. Often times, purchased hay is a better deal than hay grown and baled on your own farm when considering both feed and nutrient values of the hay. *(SOURCE: David K. Davis, Superintendent, Forage Systems Research Center, April-June 2008, Forage Systems Update, Vol 17, No. 2)*

Seeded Bermudagrass: Make sure to use a winter hardy variety

Bermudagrass is a good option as a summer perennial grass in many areas of Kentucky. With proper pH and fertility it provides high yields and has good tolerance to grazing. It shows much better water use efficiency than cool season grasses. Up until the last few years' bermudagrass had to be sprigged to obtain a stand. Now there are a number of seeded varieties on the market that can be planted with traditional seeding equipment as long as they are planted into a fine, firm seedbed at 1/8" to 1/4" deep. The limitation to seeded varieties currently on the market is that they are not tolerant to average winter conditions in Kentucky. The spring green-up results taken in the end of April and the middle of May from our Lexington test this spring reflect this. In the table below, a 10 means that a variety has completely "greened up" after winter and will be very productive this growing season. A 5 means that 50% of the stand has "greened up" and a 0 means that the variety has not started to grow at all and has likely completed winterkilled.

Bermudagrass Variety Green-up Rating for 2008 in Lexington, KY

Variety	April 30	May 14
Wrangler	9.25	10.00
Experimental A	4.75	5.75
Experimental B	2.75	3.25
Mohawk	0.25	0.50
Cheyenne	0	0
Giant	0	0
Common	0	0

Upcoming Events

JUN 12 UK Farm Field Day, Spindletop Farm, Lexington
SEP 4 KFGC Field Day, Christian County
SEP 25 2008 All Commodity Field Day, UK Robinson Station, Jackson
OCT 23 9th Kentucky Grazing Conference, Fayette County Extension Office, Lexington

2009

FEB 19 29th Kentucky Alfalfa Conference, Cave City Convention Center

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June 2008